REMARKS

Claims 1-16 were pending in this application. Claims 1, 3, 8, and 10-16 have been amended and claims 4-7 have been canceled. Accordingly, claims 1-3, and 8-16 are presently being examined.

Applicant has attached a marked-up version of the changes made to the claims by this Amendment. The attached pages are captioned "Version With Markings To Show Changes".

Section 2 of the Office Action objected to the drawings as failing to comply with 37 C.F.R. 1.84(p)(5) because the reference signs "7'" and "8'" set forth in the description are not found in Fig. 5, and required correction.

Applicant has attached, as Exhibit B, a Letter With Proposed Drawing Changes, And New, Corrected Drawings in which the reference signs "7'" and "8'" are proposed to be added to the drawings. Support for this addition can be found, inter alia, on page 15 in lines 19 and 21, and in Fig. 5 of the subject specification. Applicant respectfully submits that the new, corrected formal drawings comply with 37 C.F.R. §1.84 and that no new matter of the type prohibited by 35 U.S.C. §132 and 37 C.F.R. §1.121 is introduced.

In view of the remarks above, and the Letter With Proposed Drawing Changes And New, Corrected Drawings, applicant respectfully requests that the objection to the drawings, be reconsidered and withdrawn.

Section 3 of the Office Action objected to the specification as not containing an abstract and required an abstract on a separate sheet.

Applicant hereinabove provides, as Exhibit A, a copy of the abstract on a separate sheet to conform to the requirement in the Office Action. This abstract is identical to the abstract on the first page of PCT Publication No. WO 99/60515 from which this

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application is the national stage. Accordingly, no new matter has been introduced by this abstract.

In view of the remarks above and the submission of the abstract on a separate sheet, applicant respectfully requests that the objection to the abstract be reconsidered and withdrawn.

Section 4 of the Office Action objected to the disclosure because of three (3) typographical errors, and required correction.

Applicant hereinabove has amended the specification to correct the typographical errors noted in the Office Action. These errors, and their corrections, are indicated in the attached Version With Markings To Show Changes. Support for these corrections can be found, inter alia, in the sentence in which the error occurs. Applicant respectfully submits that no new matter of the type prohibited by 35 U.S.C. §132 and 37 C.F.R. §1.121 is introduced.

In view of the remarks above and the amendment to the specification, applicant respectfully requests that the objection to the disclosure be reconsidered and withdrawn.

Sections 5 and 10 of the Office Action rejected claims 4-16 under 37 C.F.R. 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim.

Applicant hereinabove amended claims 3, 10-14 and 16 to eliminate all multiple dependencies in the claims by having each claim depend on only one other claim in conformance with 37 C.F.R. §1.75(c). Applicant has also amended claims 3, 8, 10 and 14-15 to remove reference numbers from the claims.

In view of the amendments to claims 3, 10-14 and 16, applicant respectfully requests that the objection to claims 4-16 under 37 C.F.R. §1.75(c) be reconsidered and withdrawn.

Sections 6 and 7 of the Office Action rejected claim 1 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter

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which applicant regards as the invention. The Office Action states that the word "essentially" makes claim 1 indefinite and should be removed.

Applicant hereinabove has amended claim 1 to more clearly recite subject matter of the invention and remove the word "essentially" from the claim. Accordingly, applicant respectfully submits that amended claim 1 is not indefinite.

In view of the remarks above, and the amendment of claim 1, applicant respectfully requests that the rejection raised against claim 1 under 35 U.S.C. §112, second paragraph, be reconsidered and withdrawn.

Sections 8 and 9 of the Office Action reject claims 1-3 as being unpatentable over U.S. Patent No. 5,430,558 to Sohaei et al. ("Sohaei Patent") in view of U.S. Patent No. 5,793,033 to Feng et al. ("Feng Patent").

Applicant hereinabove has amended claim 1 to more clearly recite subject matter of the invention by reciting: (1) "an adjustable lens means" which is adjustable between at least two focus positions, a first focus position for accurately imaging when the lens means is "directly adjacent", that is abutting or nearly abutting, a surface being imaged, and a second focus position for accurately imaging when the device is "not directly adjacent", that is, recording an image at a distance from an object; (2) that the device at the first focus position takes multiple pictures such that each picture "partially overlaps content of another picture" and puts together the images to form a composite image by means of the overlapping contents; and (3) the first and second lens positions are different. Applicant has also amended claims 3 and 8, and cancelled claims 4-7 to conform to the amendment of claim 1. Support for these amendments can be found, inter alia, from page 3, line 36 to page 4, line 28, on page 8 in lines 13-20, on page 9 in lines 12-25, and from page 11 in line 26 to page 12, line 33 of the

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subject specification.

Applicant respectfully submits that while the Sohaei Patent discloses a handheld scanner, this handheld scanner only has one single operative mode, that is, a scanning mode. The other mode is a stand-by mode. In contrast, the device taught by the subject invention and recited in amended claim 1 has the ability to adjust between two (2) operative scanning modes, the first, "directly adjacent", mode and the second, "not directly adjacent mode". Further, while the Feng Patent has at least two modes, the Feng Patent does not teach or suggest a device having the ability to adjust between one mode and a mode in which the device is operated "directly adjacent" a surface. Indeed, the optical system of the Feng Patent only has a "working range" which can be no closer than 2.5 inches from the target surface in any mode, see column 9, lines 19-30 of the Feng Patent. In addition, the handheld scanners of the Sohaei Patent and the Feng Patent each have a fixed, that is, not adjustable/moveable, optical system for projecting images onto the sensor. In contrast, the device taught by the subject invention and recited in amended claim 1, has an "adjustable lens means" which can move between two focus positions, each providing a different focus permitting more accurate projection of a particular image than the other focus. Thus, applicant respectfully submits that the combination of the Sohaei and Feng Patents, alone or in combination, fail to teach or suggest a device which has the ability to operate in two modes, one mode for scanning "directly adjacent" a surface, and the other mode for a scanning at a distance.

Also, the handheld scanner of the Sohaei Patent requires a roller for determining the relative position of the scanner during the scanner operation. In contrast, the device taught by the subject invention and recited in amended claim 1 does not require such a roller because the relative position of images is

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determined by assembling, that is, 'putting together', the images recorded by the two-dimensional sensor based on the partially overlapping contents of the images. Also, the Feng Patent does not teach or suggest, and indeed, does not need to know the relative position between images at least because the entire target dataform 45 in the Feng Patent appears to be within the field of view 44, see for example Fig. 8 and column 19 in lines 28-42 of the Feng Patent. While the Feng Patent can take multiple images of a target, the Feng Patent fails to teach or suggest combining such images to form a "composite image" based on partially overlapping content as taught by the subject invention and as recited in amended claim 1.

Thus, applicant respectfully submits neither of the cited references, alone or in combination, discloses a handheld device having two operative modes with different foci, achieved by means of an adjustable lens system, and one of operative modes being capable of accurately imaging directly adjacent a surface, multiple images having overlapping contents which are put together by the device into a composite image using the overlapping contents.

Claims 2-3 depend on amended claim 1, and because a claim which depends on another claim is subject to all the limitations of that other claim, applicant respectfully submits that claims 2-3 are not taught or suggested by the Sohaei Patent or the Feng Patent, alone or in combination, for at least the reasons discussed above with respect to amended claim 1.

In view of the remarks above, and the amendment of claim 1, applicant respectfully requests that the rejection raised against claims 1-3 raised under 35 U.S.C. §103(a) be reconsidered and withdrawn.

In view of the amendments, cancellations, and remarks above, applicant respectfully requests that the rejections and objections raised in the Office Action be reconsidered and withdrawn, and

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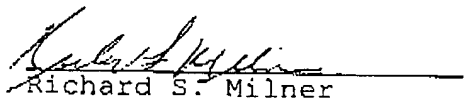
solicits the allowance of claims 1-3 and 8-16, as amended.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicant's undersigned attorney invites the Examiner to telephone him at the number provided below.

No fee, other than the fee for the three-month extension of time, is deemed necessary in connection with the filing of this Amendment. However, if any such fees are required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,



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I hereby certify that this paper is being deposited this date with the U.S. Postal Service as first class mail addressed to: Assistant Commissioner for Patents Washington, D.C. 20231.

Richard S. Milner Date
Reg. No. 33,970

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Applicant : Christer FÅHRAEUS
Serial No.: 09/673,786

63464/NHZ/RSM

Version With Markings To Show Changes

In this Version, text being deleted is ~~struck out~~ and surrounded by square brackets "[ ]" and test being inserted is underlined.

In the Specifications:

The abstract has been presented on a separate sheet as follows:

A device for recording information has at least one light-sensitive sensor (8) with a two-dimensional sensor surface. The device is adjustable between a first mode and a second mode. In the first mode, the device is adapted to essentially abut against and be passed over a surface for imaging the same by means of a plurality of images. In the second mode, the device is adapted to image an object located at a distance.

Page 3, paragraph 6 has been changed as follows:

The invention is based on the understanding that with a light-sensitive sensor with a two-dimensional sensor surface as the starting-point, a text recording function, i.e. a "scanner function", as well as an image recording function, i.e. a "camera function", can be easily created in [~~one and~~] the same device. More specifically, the device is adjustable between a first mode, in which the device is adapted to essentially abut against and be passed over a surface for imaging the same by means of a plurality of images, and a second mode, in which the device is adapted to image an object located at a distance.

Page 8, paragraph 7 has been changed as follows:

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This window 2 forms an acute angle to the longitudinal axis of the device so that in the first mode the user is guided to hold the device at a predetermined angle to the underlying surface. Furthermore, the window 2 is somewhat recessed in the casing 1 so that [~~is~~]it does not wear against the underlying surface when the device is used in the first mode.

Page 12, paragraph 5 has been changed as follows:

Our Swedish patent application No. 9704924-1 and the corresponding US Application No. [~~024 641~~]09/024,641, describe an alternative way of matching the images in order to find the best overlap position. The content of these applications is herewith incorporated by reference.

In the Claims:

Claims 1, 3, 8, and 10-16 have been amended, and claims 4-7 have been canceled without prejudice as follows:

1. (Amended) A device for recording information by means of imaging with the aid of at least one light-sensitive sensor [~~(8)~~] with a two-dimensional sensor surface, characterized in that:

the device [~~is adjustable between~~] has:

an adjustable lens means providing a plurality of lens positions;

a first mode, in which [~~the device is adapted to essentially abut against and be passed over a surface for imaging the same by means of a plurality of images,~~] a plurality of images of a surface are recorded by the sensor through the adjustable lens means at a first focus position which provides

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projections of images of the surface onto the sensor when the device is directly adjacent the surface more accurately than at a second focus position, each image of the plurality of images containing content which partially overlaps content of another image of the plurality of images, such that the overlapping contents of the images are utilized by the device to put together the images into a composite image; and

a second mode, in which [~~the device is adapted to reproduce an image of an object located at a distance~~] at least one image is recorded by the sensor of a field of vision through the adjustable lens means at the second focus position which provides projections of the image of the field of vision onto the sensor when the device is not positioned directly adjacent the surface more accurately than at the first focus position, and such that the first focus position and the second focus position are different.

2. (Not Amended) A device according to claim 1, wherein said device is adapted to store information in character-coded format in the first mode and in image format in the second mode.

3. (Amended) A device according to claim 1 [~~or 2~~], wherein the device comprises two light-sensitive sensors [~~(8) with~~] each having a two-dimensional sensor surface, one sensor being used in the first mode and the other sensor in the second mode.

4. (Canceled) [~~A device according to any one of the preceding claims, wherein the device has a light-sensitive sensor which is used both in the first and in the second mode.~~]

5. (Canceled) [~~A device according to claim 4, further comprising a lens means (7) which is adapted to project an image of the~~

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~~information onto the sensor surface (8) and which is adjustable between a first position in the first mode and a second position in the second mode for providing two different foci.~~]

6. (Canceled) [~~A device according to any one of claims 1-4, further comprising a lens means (7) which is adapted to project an image of the information onto the sensor surface (8), the position of the lens means (7) being variable for providing a variable focus.~~]

7. (Canceled) [~~A device according to any one of the preceding claims, wherein said device is adapted to carry out the imaging of the surface in the first mode in such a way that the images have partially overlapping contents.~~]

8. (Amended) A device according to claim [~~7~~]1, further comprising a signal-processing unit [~~(20)~~], which is adapted to utilize the partially overlapping contents of the images for putting together the images into [~~a~~]the composite image, no recording being required of the position of the device relative to the surface which is being imaged.

9. (Not Amended) A device according to claim 8, wherein the signal-processing unit is adapted to carry out the putting-together of the images horizontally as well as vertically.

10. (Amended) A device according to claim 8 [~~or 9~~], wherein the signal-processing unit [~~(20)~~] further comprises software for identifying characters in the composite image and for storing the same in the device in character-coded format.

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11. (Amended) A device according to [~~any one of the preceding claims~~]claim 1, further comprising a transceiver for wireless communication with an external unit.

12. (Amended) A device according to [~~any one of the preceding claims~~]claim 1, wherein said device is adapted to effect the imaging in the first mode with lower resolution than the imaging in the second mode.

13. (Amended) A device according to [~~any one of the preceding claims~~]claim 1, wherein said device is of the hand-held type.

14. (Amended) A device according to [~~any one of the preceding claims~~]claim 1, further comprising identification means [~~(25)~~] for identifying the extent of the imaging.

15. (Amended) A device according to claim 14, wherein the identification means comprises a display [~~(25)~~].

16. (Amended) A device according to claim 14 [~~or 15~~], wherein the identification means is adapted to project at least one luminous spot onto the surface or the object to be imaged.

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